
Owner's Guide

Introduction

Welcome to the world of the DOD TEC8G! You have purchased the finest guitar signal processor and preamp of its kind; hardly a surprise when it comes from DOD. The TEC8G gives you both functional flexibility and tonal excellence, driven by our proven effects processing technology.

Specifications

Up to 8 effects at a time
Ergonomic look and feel
Built-in effect Expression Pedal
Analog IT™ and Grunge™ Distortions
3-band EQ
Effects include: Compressor, 8 Analog Distortions, Noise Gate, Chorus, Flanger, Phaser, Tremolo, Ring Modulator, Pixellator, Pitch, Shift, Detune, Mono and Tap Delays, Reverb
Easy-to-use interface
30 User, 30 Factory Presets
Jam-a-long™ Jack
A/D Resolution: 18 Bit
D/A Resolution: 16 Bit
DSP: 24 bit
Frequency Response: 20Hz to 16kHz
Signal to Noise Ratio: -87dB
Power Supply: DOD PS750, 9 VAC @ 750 ma

IMPORTANT!

FOR YOUR PROTECTION, PLEASE READ THE FOLLOWING:

WATER AND MOISTURE: Appliance should not be used near water (e.g. near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc). Care should be taken so that objects do not fall on and liquids are not spilled into the enclosure through openings.

POWER SOURCES: The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

GROUNING OR POLARIZATION: Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

POWER CORD PROTECTION: Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

SERVICING: The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

FUSING: If your unit is equipped with a fuse receptacle, replace with only same type fuse. Refer to replacement text on the unit for correct fuse type.

Warranty

1. The warranty registration card must be mailed within ten days after purchase date to validate this warranty.
2. DOD warrants this product, when used solely within the U.S., to be free from defects in materials and workmanship under normal use and service.
3. DOD liability under this warranty is limited to repairing or replacing defective materials that show evidence of defect, provided the product is returned to DOD **WITH RETURN AUTHORIZATION**, where all parts and labor will be covered up to a period of two (2) years. A Return Authorization number may be obtained from DOD by telephone. The company shall not be liable for any consequential damage as a result of the product's use in any circuit or assembly.
4. Proof-of-purchase is considered to be the burden of the consumer.
5. DOD reserves the right to make changes in design or make additions to or improvements upon this product without incurring any obligation to install the same on products previously manufactured.
6. The foregoing is in lieu of all other warranties, expressed or implied, and DOD neither assumes nor authorizes any person to assume for it any obligation or liability in connection with the sale of this product. In no event shall DOD or its dealers be liable for special or consequential damages or from any delay in the performance of this warranty due to causes beyond their control.

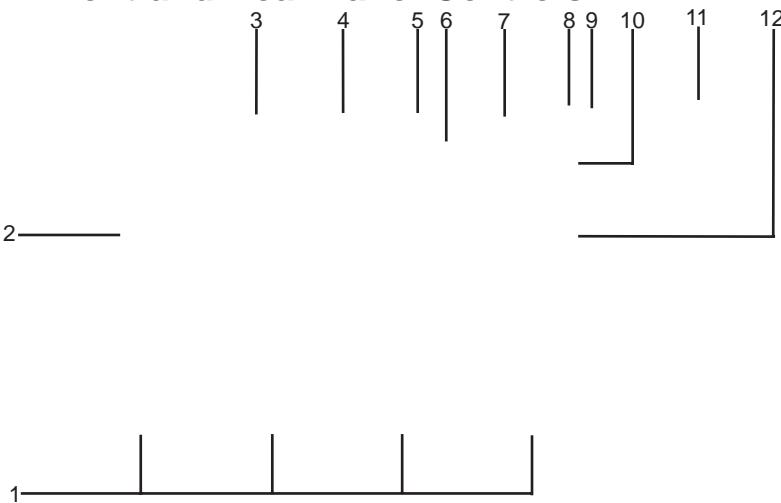
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The information contained in this manual is subject to change at any time without notification. Some information contained in this manual may also be inaccurate due to undocumented changes in the product or operating system since this version of the manual was completed. The information contained in this version of the owner's manual supersedes all previous versions.

SECTION 1 - GETTING STARTED	.2
Front Panel Controls	.2
PROGRAM AND BANK SELECTOR FOOTSWITCHES	.2
EFFECT SELECTOR BUTTONS (DIGITAL FX)	.2
EFFECT GROUPS	.2
EFFECT SELECTOR BUTTONS (PREAMP)	.2
STORE BUTTON	.2
DISPLAY	.2
DATA WHEEL	.2
CLIP LED	.2
3	
OUTPUT KNOB	.3
INPUT KNOB	.3
EXPRESSION ASSIGN	.3
Rear Panel Connections	.3
INSTRUMENT INPUT	.3
JAM-A-LONG™ INPUT	.3
HEADPHONE OUTPUT	.3
LEFT / MONO OUT	.3
RIGHT OUT	.3
AC POWER INPUT	.3
POWER CORD STRAIN RELIEF	.3
Hooking Up and Supplying Power	.4
SECTION 2 - PROGRAMMING THE TEC8G	.5
Navigating The TEC8G	.5
Selecting Programs in the TEC8G	.5
User LED Indicator	.5
Using The Footswitches	.5
Selecting Programs using the footswitches	.5
Editing Programs	.6
Expression Pedal Assign	.7
Storing Programs	.8
Bypassing	.8
The TEC8G's Effects	.9
DISTORTIONS	.9
EQUALIZER	.9
CHORUSES	.9
FLANGERS	.10
PHASERS	.10
10	
TREMOLO	.10
RING MODULATOR	.10
PIXELLATOR	.10
DELAYS	.11
Tuner	.11
Accessing the Tuner	.11
Changing the Tuning Reference	.12
Factory Program Reset	.12
Factory Program List	.13

SECTION 1 - GETTING STARTED

Front and Rear Panel Controls



- 1) **PROGRAM and BANK SELECTOR FOOTSWITCHES** - These footswitches give you access to the User Programs in the TEC8G and allow you to change User Banks.
- 2) **EFFECT SELECTOR BUTTONS** - This row of buttons lets you select an effect group for editing, or to bypass the group completely. These groups include Master Level, Reverb, Delay, Detune, Pitch Shift, Phase, Tremolo, Ring Modulator, Pixellator, Chorus, Flange, Gate, EQ, Distortion, and Compressor.
- 3) **EFFECT GROUPS** - The TEC8G's effects are divided into 14 groups and labeled on the front panel. When lit, the LED in each group indicates that an effect in the group is active.
- 4) **TUNER LEDS** - These LEDs become active when the tuner is selected and a note is played. Used in conjunction with the Program Display, they will show whether the input note is sharp or flat.
- 5) **STORE BUTTON** - Stores your custom Programs in the User memory location you select.
- 6) **DISPLAY** - The LED display in Program mode, shows which Bank and Program is currently selected. In Edit mode, it shows the number and/or status of the selected effect. In Tuner mode, it displays the input note.
- 7) **DATA WHEEL** - In Program mode, use the Data wheel to scroll through Programs. In Edit mode, use it to change the setting of effect groups.

8) CLIP LED - The red Clip LED lights when clipping occurs at the input of the TEC8G or when the Master Level may be too high. To eliminate clipping, reduce the setting of the Input Level control or the Master Level parameter until it only blinks occasionally with peak signals.

9) OUTPUT KNOB - Controls the overall output level of both the Left and Right outputs and the Headphone output.

10) INPUT KNOB - Controls the level of the signal at the TEC8G's input stage.

11) EXPRESSION PEDAL - Controls the parameter selected by Expression Assign Group. (See Expression Assign on page 8.)

12) EXPRESSION ASSIGN. - Expression Assign selects which effect parameter is controlled by the Expression Pedal.

1) INSTRUMENT INPUT - Plug your instrument in here.

2) HEADPHONE OUTPUT - This stereo mini phone plug is for your headphones. The overall headphone level is controlled by the Output level knob.

3) JAM-A-LONG™ INPUT - This stereo mini jack lets you connect your tape deck or CD player headphone output to the TEC8G for personal jam sessions. The Jam-a-Long™ signal is mixed with your instrument signal at both the main and headphone outputs so you can play along with your favorite tunes.

4) LEFT / MONO OUT - For stereo applications, this is the Left main output. Use this jack for mono applications.

5) RIGHT OUT - For stereo applications, this is the Right main output. For mono applications, leave this jack unconnected.

6) AC POWER ADAPTER INPUT - Connect the supplied PS750 AC power adapter to this jack. Use only the adapter supplied with the TEC8G. Use of any other adapter may damage the unit.

7) POWER CORD STRAIN RELIEF - This clip prevents the AC power cord from being accidentally pulled out.

Hooking Up and Supplying Power

DO NOT APPLY POWER TO THE TEC8G UNTIL INSTRUCTED.

1) **STEREO:** Connect the Left and Right outputs to a pair of guitar amplifiers, or the inputs of a mixing console. If you're using guitar amps, set the tone controls flat (no boost or cut) and balance the levels between them. If you're using a console, pan the TEC8G output channels hard left and right, and turn down the high frequency EQ for best results.

MONO: Connect the Left output to a guitar amplifier or input of a mixing console.

- 2) Connect your instrument to the input of the TEC8G.
- 3) Power up the TEC8G by connecting the supplied AC adapter between the TEC8G and a power outlet.
- 4) Play your instrument and watch the Clip LED on the TEC8G carefully as you set the Input knob. Turn up the Input level until the Clip LED begins to light, and reduce the input level slightly. When the Input knob is set properly, the Clip LED should only flicker on the loudest passages.
- 5) Set the Output level as desired.

The TEC8G, like any piece of computer hardware, is sensitive to voltage drops, spikes, and surges. Interference such as lightning or power "brownouts" can seriously, and in extreme cases, permanently damage the circuitry inside the unit. Here are a few tips that will help get the best possible performance out of your TEC8G while avoiding damage:

- Always make sure you have a "clean" power source for connecting to the TEC8G. This means that the AC power line you connect to the TEC8G should be as free from voltage fluctuations and RF interference as possible.
- Use a good quality spike / surge suppressor. This is an inexpensive solution to all but the most severe AC line conditions. A good quality power strip can save you a lot of money in repair bills because they prevent large spikes and surges from reaching your equipment.
- Always make sure that your audio lines are as far as possible from power cables. This will further prevent noise, hum, and stray magnetic fields from entering your signal path. If audio and power lines must run close to each other, try to avoid running them parallel to one another

SECTION 2 - PROGRAMMING THE TEC8G

Navigating The TEC8G

The TEC8G is designed to be both easy to program and flexible. The structure of a TEC8G Program is logical and doesn't require a lot of time to master.

Selecting Programs in the TEC8G:

After you power up, use the Data wheel to scroll through the Programs. As you scroll, the effect group and footswitch LEDs turn on and off. These LEDs indicate which effects are used in each Program, and which Program in the Bank is selected.

There are 14 effect groupings printed on the front panel of the TEC8G. Seven are digital effect groups (delay, reverb, etc.) , six cover the preamp section (compression, distortion, gate, EQ), and one is the Expression Assign group. Each group has its own LED that indicates the status of each group.

If the Status LED is lit continuously, an effect in the indicated group is active. If the LED is not lit, no effects in the group are active. If the LED is flashing, edit mode is active, and effects in the group can be selected using the Data wheel.

Directly below each *vertical* group are the Effect Selector buttons. These buttons allow you to select and/or bypass effects in the TEC8G. The following things happen when you use the Effect Selector buttons:

- When you select a bypassed effect, its group LED begins flashing and the display shows two dashes (0 on EQs), indicating that the effect is selected but bypassed. (Pressing the Select button again activates the effect.)
- When you select an active effect, its group LED begins flashing and the display shows the number of the currently selected effect. (Pressing the button again bypasses the effect.)

User LED Indicator

The User LED below the display indicates that the current Program is a User Program in the User bank when lit. When the LED is not lit, the current Program is a permanent Factory Program in the Factory bank.

Using The Footswitches

The TEC8G's pedalboard consists of four footswitches. The far right footswitch is the Bank selector, and the remaining three are Program selectors.

A Bank is a group of three Programs. There are 10 User Banks in the TEC8G, each with 3 Programs for a total of 30 User Programs. There are also 30 Factory Programs that can be selected using the Data wheel only. User Programs in any of the Banks can be recalled in one of two ways:

1) by pressing the Bank select footswitch followed by footswitch 1, 2, or 3.

2) by turning the Data wheel in Program mode.

To Select Programs using the footswitches:

1) After you power up, the TEC8G defaults to Program mode. Select a Bank by pressing the Bank selector footswitch. The display shows the selected bank number on the left side of the display and a dash on the right. The display might look something like this:



or

2) Press footswitch 1, 2, or 3. The dash in the display changes to show the number of the Program you selected. The display might look something like this:



NOTE: If a new Program number is not selected within 5 seconds after pressing the Bank select button, the display returns to its previous setting.

Editing Programs

As you become more familiar with the TEC8G, you may find that you need to modify certain Programs to better fit your needs. Fortunately, the TEC8G is flexible enough to give you everything you need without being difficult to program.

The following procedure is an example of how to modify your Programs. Suppose that Program 63 (which has an Arena reverb, 250 ms Mono Delay, a Tremolo, Noise Gate, EQ, and Compression) sounds close to what you want, but you want a 300 ms delay with low feedback instead. Here's how to change it:

1) Use the Data wheel, or the Bank and Program selector footswitches to select Program 63.

2) Press the Delay effect Group button. The Mono Delay Group Status LED begins flashing and the display reads:



3) Look at the front panel Delay groupings to locate the effect you want. In this case, you'll see that the 300 ms mono delays can be found between 31 and 39 in the Mono Delay (not Multi-Delay) effect Group.

4) Use the Data wheel to scroll until the the display reads:

3.1

NOTE: When you change the selected Parameter from the stored value, a decimal point appears in the bottom right corner of the display and the Store LED lights.

That's it! You can manipulate any effect setting in the TEC8G by pressing the associated Effect Group selector button on the front panel and turning the Data wheel. The Effect Group buttons also toggle the effects on and off with each successive press of the button.

When you're editing Programs, be sure to pay attention to the flashing Status LEDs. This helps you keep track of where you are in the menus.

IMPORTANT: If you want to store your custom Program so you can use it later, follow the procedure on the next page.

Expression Pedal Assign

The TEC8G Expression Pedal can be assigned to control 1 of 10 different parameters in a program. This adds a whole new dimension in your sound by letting you make real-time effects changes during performance.

Changing the pedal's assignment is accomplished the same as editing any other effect group in your program. Simply select the Expression Assign Group button and choose one of the numbers that corresponds to the parameter you want the pedal to control. **In order for the Expression Pedal to function with a parameter you have selected, a corresponding effect must be active within the program.** To turn on the Wah or Auto Wah, just select either one in the Expression Assign Group.

The following list shows which effects are controlled by each Expression Assignment.

Assignment	Pedal controls:
1- Volume:	Master Volume.
2- Wah:	Wah Wah.

Assignment	Pedal controls:
3- Auto Wah:	Auto Wah sensitivity.
4- Mod Speed:	Chorus, Flange, Tremolo, Phaser, or Ring Modulator speed.
5- Mod Depth:	Chorus, Flange, Tremolo, or Phaser depth.
6- Mod Level:	Chorus, Flange, Phaser, or Pixellator level.
7- Detune	Detune amount.
8- Pitch/Detune Level	Pitch Shift and Detune level.
9- Delay Level:	Mono or Multi Delay level.
10- Reverb Level:	Reverb level.

When programs where Volume, Wah, or Auto Wah are selected in Expression Assign, the sound will reflect where the current pedal position is.,otherwise the pedal must be moved in order for the effect to be changed.

Storing Programs

After you have made modifications to a program, you may want to store the changes. The TEC8G lets you store up to 30 Programs in the User memory locations.

Remember, you have to store any changes in a User Program memory location otherwise all your changes will be lost.

To store a Program into a memory location:

- 1) Press the Store button. The Store LED begins flashing and the User LED lights (if not lit already).
- 2) Use the Data wheel to select the User location where you want to store the Program.
- 3) Press the Store button again to store the Program in the location you selected.

Note:

Changes made by the Expression Pedal cannot be stored.

Bypassing

The TEC8G's bypass functions are very simple.

To Bypass individual effects:

- 1) From Program mode, decide which effect you want to bypass and press its Select button twice. The display reads:



Press the effect Select button to toggle the effect in and out of bypass mode.

REMEMBER: The decimal point indicates that the value shown in the display is not the stored value.

To Bypass the selected Program:

- 1) Press the currently selected Program footswitch on the pedal-board. The footswitch's Status LED flashes and the display reads:



This indicates that the current program is bypassed. The Program selector footswitch toggles the TEC8G in and out of bypass mode.

The TEC8G's Effects

The TEC8G's library of effects is capable of handling virtually any musical situation. The following charts give you relevant information about each module's settings. For example, Noise Gates, Detuners, and Pitch Shifters are not shown because their Module names are relatively self explanatory and are displayed on the front panel. The Fast Swell and Slow Swell Noise Gates have attack times of 500 ms and 1000 ms respectively, which create a volume pedal or bowing type effect.

DISTORTION The TEC8G gives you 8 distortions to choose from, 4 of which include Cabinet Emulation. Each distortion has 10 settings, giving you plenty of selections when using either an amp or for going direct into a mixer or recording device.

Name	Gain/(Setting)	Name	Gain/(Setting)
IT	1-10 (1-10)	IT (SpkrSim)	1-10 (41-50)
Grunge™	1-10 (11-20)	Grunge™ (SpkrSim)	1-10 (51-60)
Fuzz	1-10 (21-30)	Fuzz (SpkrSim)	1-10 (61-70)
FuzzIT	1-10 (31-40)	FuzzIT (SpkrSim)	1-10 (71-80)

EQUALIZER The TEC8G is equipped with a flexible 3-band graphic EQ capable of boosting or cutting each band by 12dB.

Low EQ @ 150Hz Mid EQ @ 1kHz High EQ @ 7kHz
 \pm 12dB \pm 12dB \pm 12dB

CHORUSES A chorus works by splitting the input signal into 2 paths. One path remains unaffected while the other is delayed and the pitch is modulated slightly. Both are then mixed back together. Chorus is used to create lush thickening effects or wild pitch modulation.

CHORUSES cont'd.

Name	Speed/Level	Speed/Level	Speed/Level	Speed/Level
Slow	1 - .10Hz/25	2 - .15Hz/25	3 - .10Hz/50	4 - .15Hz/50
Medium	5 - .25Hz/25	6 - .35Hz/25	7 - .25Hz/50	8 - .30Hz/50
Fast	9 - 2.0Hz/25	10- 3.5Hz/25	11- 2.0Hz/50	12- 3.5Hz/50

FLANGERS Flangers are like choruses with the exception that part of the effected signal is returned back to the input. This is known as feedback.

Settings with larger feedback settings will create more dramatic "jet airplane" type effects.

Name	Speed/Fback	Speed/Fback	Speed/Fback	Speed/Fback
Slow	13- .10Hz/40	14- .15Hz/40	15- .15Hz/50	16- .20Hz/50
Medium	17- .30Hz/50	18- .35Hz/50	19- .40Hz/60	20- .40Hz/60
Fast	21- .70Hz/60	22- .80Hz/60	23- 1.0Hz/75	24- 1.0Hz/80

PHASERS Phasers, like Flangers, split the input signal into 2 paths. One path remains unaffected while the other is modulated in and out of phase. When this is combined with the original, part of this signal is returned back to the input (feedback). Increased feedback settings can produce very spacey sounds, reminiscent of late 60's early 70's music.

Name	Speed/Fback	Speed/Fback	Speed/Fback	Speed/Fback
Slow	1 - .10Hz/60	2 - .10Hz/70	3 - .15Hz/80	4 - .15Hz/80
Medium	5 - .25Hz/60	6 - .25Hz/70	7 - .45Hz/70	8 - .45Hz/80
Fast	9 - .90Hz/40	10- 1.0Hz/50	11- 1.5Hz/50	12- 2.0Hz/60

TREMOLO Tremolos modulate the level of the signal. This effect is has been found in guitar amps for years and has recently become a popular effect again. The TEC8G gives you 9 speeds ranging from 2.0 Hz - 9.0 Hz.

RING MODULATOR The Ring Modulator produces mathematically related sounds rather than a harmonically related sounds. It is useful for atonal and percussive-like effects.

Setting	Frequency	Setting	Frequency
22	80	26	750
23	160	27	1000
24	320	28	1300
25	500		

PIXELLATOR The Pixellator takes the input signal and undersamples it to create a raw digital version of the original. This effect is popular in industrial, rap, and techno music.

Setting	Pixelation	Wet/Dry Mix
29-31	10	33/67, 67/33, 100/0
32-34	20	33/67, 67/33, 100/0

35-37	30	33/67, 67/33, 100/0
38-40	Random	67/33

MONO DELAYS

The Mono Delays are arranged in groups of 9. Each delay time has a feedback ratio (number of repeats) and level associated with each number. Here is an example of how each delay time works:

Each Mono Delay time has 9 selections. These selections consist of 3 different feedbacks (number of repeats) and 3 different levels. For example, a Mono 200ms number 15 would have a 200ms delay time, a feedback of 30%, and a level of 30.

Selection	fb/lev	fb/lev	fb/lev
1-3	0%/15	0%/30	0%/50
4-6	30%/15	30%/30	30%/50
7-9	50%/15	50%/30	50%/50

MULTI DELAYS

The Pong and Tap Delays have 2 delay times. The Pong Delays bounce from left to right at a regular interval while the Tap Delays bounce left to right in more of a rhythmic way.

As with the Mono Delays, each Multi Delay time has 9 selections. These selections consist of 3 different feedbacks (number of repeats) and 3 different levels. For example, a Tap 300/400ms number 63 would have a Tap delay time of 300 and 400 ms, a feedback of 0%, and a level of 50.

Selection	fb/lev	fb/lev	fb/lev
1-3	0%/15	0%/30	0%/50
4-6	30%/15	30%/30	30%/50
7-9	50%/15	50%/30	50%/50

Tuner

The TEC8G is equipped with a flexible tuner for on the spot adjustments. There are 3 selectable tuning references as well, **Standard**, tuning, **1/2 step down** tuning, and **Whole step down** tuning.

To access the tuner: Press and hold the currently selected program's footswitch. The display will read **tu**. Play a note and the display will show which note is selected. The tuner LED's will begin to light. If the LEDs to the left of the green In Tune LED are lit, the note shown in the display is flat. If the LEDs to the right are lit, the note is sharp.

To change tuning reference: Press and hold the currently selected program's footswitch. The display will read **tu**. Turning the data wheel will select one of 3 references, Standard or **A**, 1/2 step down or **Ab**, or Whole step down or **g** tuning. Now guitars that are tuned a 1/2 or whole step lower than standard will still read the normal letter of the selected string in the display.

Factory Program Reset

Resetting the TEC8G will erase all User programs and restore them to their original Factory settings. **Remember, when resetting the TEC8G, all previous User settings will be lost.**

To reset the TEC8G

- 1- With the power off, press and hold the Low EQ and Mid EQ effect group buttons.
- 2- Connect the power while still hold the buttons down. The display will read:

A rectangular box containing the letters 'rs' in a bold, sans-serif font.

At this point, all User presets will now be restored to their original Factory settings

Factory Program List

Following is a list of the factory Programs available in the TEC8G. They are divided into Banks with a suggested application for each sound. As always, don't be afraid to experiment.

PROGRAM #	PROGRAM #
Cool Stuff 01-Surfin' Drenched Reverb 02-Elbow punk/metal 03-Funkenwankin	More Rock 51-“Harmanized” lead 52-Combo Rhythm 53-Homogenized Rock Effects
Alternative 11-Grunge™ 12-Big Fluff 13-Industrial Pixellator	Retro 61-Dead Phaser 62-Fuzz/IT 63-Tremolo Clean Delay
Metal 21-Tallica 22-Clean Metal Chorus 23-Wah solo	Reggae/Ska 71-Skank 72-Dr. Reggae 73-Heavy Brains
Country 31-Chicken Pickin' 32-Slide Volume 33-Country Tremolo	Sound Effects 81- Adult Video 82- Gonkulator-Ring Modulator 83- Autoswell string pad
Rock 41-British stack 42-Stack lead 43-Flange stack	Bass 91-Octabass(For Guitar) 92-Thick bass 93-Funky bass

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